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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 831,419	08 13 2001	Yura Hirofumi	33550	4225

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PEARNE & GORDON LLP  
526 SUPERIOR AVENUE EAST  
SUITE 1200  
CLEVELAND, OH 44114-1484

EXAMINER

WHITE, EVERETT NMN

ART UNIT	PAPER NUMBER
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1623

DATE MAILED: 07 29 2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/831,419

Applicant(s)

HIROFUMI ET AL.

Examiner

EVERETT WHITE

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2003 and 16 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) 13-23 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Preliminary Examination Report.

14) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f) for a provisional application.

- a) ☐ The translation of the foreign language provisional application has been received.

- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☐ Notice of Inventor's Right to be Named as Inventor
- ☐ Notice of Inventor's Right to be Named as Inventor
- ☐ Information Disclosure Statement(s) (PTO-1449, Paper No. 1)
- ☐ Other

### DETAILED ACTION

1. The amendment filed January 30, 2003 and response to the restriction requirement filed May 16, 2003 has been received, entered and carefully considered. The amendment and response affects the instant application accordingly:
  - (A) Claims 1-12 have been canceled.
  - (B) New Claims 13-26 have been added.
  - (C) Applicant's election without traverse of Group VII, Claims 24 and 25, in Paper No. 9 is acknowledged.
  - (D) Comments regarding Office Action in the Amendment filed January 30, 2003 have been provide to
    - (a) 102(a) rejection to the Noevir patent, which has been maintained for the reasons of record;
    - (b) 102(a) rejection to the Clapper et al patent, which has been withdrawn.
2. Claims 13-26 are pending in the case.
3. The text of those sections of title 35, U. S. Code not included in this action can be found in a prior Office action.

### ***Claim Objections***

4. Claim 25 is objected to because of the following informalities: Claim 25 is objected to for depending from non-elected claims, Claims 13-23, which have been withdrawn from consideration as being directed to non-elected inventions. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

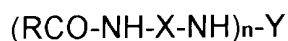
5. Claims 24 and 25 stand rejected under 35 U.S.C. 102(a) as being anticipated by Noevir (Japanese Patent No. 10182332) for the reasons set forth on pages 2 and 3 of

Office Action dated October 2, 2003.

are not persuasive. On page 6 of Applicants response filed January 30, 2003 Applicants argue against the Noevir patent on the grounds that the saccharide represented by X in the Noevir patent is different from the carbohydrates recited in

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instant Claim 24. However, this argument is not persuasive because it is noted that instant Claim 24 is also directed to a functional chitosan derivative wherein the functional group may be selected as an amphipathic group being incorporated to an amino group at the 2-position of a glucosamine unit constituting the chitin/chitosan. The Noevir patent discloses an amphipathic chitosan derivative that anticipates the description of the amphipathic group in instant Claim 24 by describing an amphipathic chitosan derivative that comprises introducing an N-acylamino-saccharide to the amine group of the chitosan. See the formula



in the Derwent abstract wherein R represents 2-22 carbon alkyl or alkenyl; X represents a saccharide; and Y represents chitosan or partly deacetylated chitin; and n is at least 1 which anticipates the description of the functional chitosan derivative set forth in instant Claim 24 when the amphipathic group is selected as the functional group. The health-care material of instant Claim 25 comprising the functional chitosan derivative of instant Claim 24 is noted. However, Applicants are reminded that a difference in intended use cannot render a claimed composition novel. Note *In re Tuominen*, 213 USPQ 89 (CCPA, 1982); *In re Pearson*, 494 F.2d 1399; 181 USPQ 641 (CCPA, 1974); and *In re Hack* 114 USPQ 161. Accordingly, the rejection of Claims 24 and 25 under 35 U.S.C. 102(a) as being anticipated by the Noevir patent is maintained for the reasons of record.

7. Claims 24 and 25 are rejected under 35 U.S.C. 102(a) as being anticipated by Netekku (JP Patent No. 10120705).

Applicants claim a functional chitosan derivative characterized by being formed by incorporating to an at least partially deacetylated chitin/chitosan at least one

and equivalents thereof and being incorporated to an amino group at the 2-position of a glucosamine unit constituting said chitin/chitosan. An additional limitation in dependent Claim 24 includes a health-care material comprising a functional chitosan derivative

The Netekku patent discloses a synthetic amino sugar derivative that comprises at least 1 other sugar joined to an amino group of at least part of an amino sugar of polysaccharide and/or oligo sugar containing amino sugar as the structural sugar. The oligo sugar is preferably low molecular oligo sugar formed by decomposing enzymatically or chemically polysaccharide. The polysaccharide is chitin and the oligo sugar may be chitosan. The other sugar may be selected as lactose, melibiose, maltose, laminariboiose, cellobiose, or mannobiose (see the Derwent Abstract). The synthetic amino sugar derivative of the Netekku patent anticipates the functional chitosan derivative of instant Claim 24 when the functional group incorporated to the partially deacetylated chitin/chitosan is a carbohydrate selected from lactose, maltose, melibiose, cellobiose, laminariboiose and mannobiose. The health-care material of instant Claim 25 comprising the functional chitosan derivative of instant Claim 24 is noted. However, Applicants are reminded that a difference in intended use cannot render a claimed composition novel. Note *In re Tuominen*, 213 USPQ 89 (CCPA, 1982); *In re Pearson*, 494 F2d 1399; 181 USPQ 641 (CCPA, 1974); and *In re Hack* 114 USPQ 161.

8. Applicant's arguments with respect to Claims 24 and 25 have been considered but are moot in view of the new ground(s) of rejection.

### ***Reply To Final Must Include Cancellation***

9. This application contains Claims 13-23 and 26 drawn to an invention nonelected without traverse in Paper No. 9. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Summary***

10. Claims 24 and 25 are rejected. Claims 13-23 and 26 are withdrawn from

***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Examiner's Telephone Number, Fax Number, and Other Information***

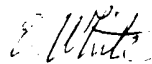
12. For 24 hour access to patent application information 7 days per week, or for filing applications, please visit our website at [www.uspto.gov](http://www.uspto.gov) and click on the button "Patent Electronic Business Center" for more information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Everett White whose telephone number is (703) 308-4621. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, can be reached on (703) 308-4624. The fax phone number for this Group is (703) 308-4556.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1235.



E. White



James O. Wilson  
Supervisory Primary Examiner  
**Technology Center 1600**